

REMARKS

Please reconsider the application in view of the foregoing amendments and the following remarks.

Status of Claims

Claims 1, 2, 5, 9 and 12 are pending in the present application. Claim1 is herein amended. No new matter has been entered.

Information Disclosure Statement

Applicants note with appreciation the Examiners thorough consideration of the references cited in the Information Disclosure Statements (IDS) submitted on September 6 and December 4, 2006.

As to the Merits

As to the merits of this case, the Examiner sets forth the following rejections:

Claim 1 was rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of US-5504603 to **Winker** in view of US-6476892 to **Aminaka**.

Claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of US-5504603 to Winker in view of US-6476892 to **Aminaka** in view of US-4767190 to **Dir**.

Claims 5 and 9 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of US-5504603 to **Winker** in view of US-6476892 to **Aminaka**.

Claim 12 was rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of US-5504603 to Winker in view of US-6476892 to Aminaka.

Each of these rejections is respectfully traversed.

Claim Rejections - 35 USC § 103

Independent Claim 1

Claim 1, as amended, calls for ... *a negative C plate and a negative A plate arranged between the liquid crystal cell and the first polarizer; and an isotropic optical element arranged between the liquid crystal cell and the second polarizer, wherein the negative C plate is arranged between the first polarizer and the negative A plate, wherein a difference between $Re[590]$ of the negative A plate and $Rth[590]$ of the negative C plate is a range of ± 0 nm to ± 170 nm.*

For example, as noted in paragraph [0019] of the present specification, “the liquid crystal panel of the present invention can eliminate adverse effects on display properties due to the

retardation value of the liquid crystal cell by (1) arranging an isotropic optical element between the liquid crystal cell and a second polarizer arranged on one side of the liquid crystal cell. Further, light leak in an oblique direction due to the retardation values of the polarizers or the structural members arranged between the polarizers and the liquid crystal cell can be reduced by (2) using a negative C plate between the liquid crystal cell and a first polarizer arranged on another side of the liquid crystal cell, in addition to the negative A plate, and arranging the negative C plate between the first polarizer and the negative A plate. The liquid crystal panel of the present invention includes the components described in **(1) and (2) in combination**, to thereby provide a synergetic effect. As a result, light leak in an oblique direction in black display can be drastically reduced, and a liquid crystal panel (a liquid crystal display apparatus) having a significantly higher contrast ratio in an oblique direction than a contrast ratio (about 10) in an oblique direction of a conventional liquid crystal panel (a liquid crystal display apparatus) and a small color shift in an oblique direction can be provided." (emphasis added).

First, as to the recitation in amended claim 1, Winker fails to disclose or suggest R_e [590] of the negative A plate or R_{th} [590] of the negative C plate. Winker fails to disclose or suggest even a refractive index ellipsoid of the A plate and C plate. Needless to say, Winker fails to disclose or suggest a difference ($\Delta R = R_e$ [590] - R_{th} [590]) between R_e [590] of the negative A plate and R_{th} [590] of the negative C plate.

According to the claimed invention, the negative A plate and negative C plate having above difference ($\Delta R = R_e$ [590] - R_{th} [590]) provide a synergetic effect of exhibiting the functions

of the respective optical elements, and allows increase in a contrast ratio in an oblique direction and reduction in a color shift in an oblique direction of a liquid crystal display apparatus.

On page 2, item 2.2 of the Office Action, it is alleged that “a negative C plate and a negative A plate arranged between the first polarizer and the LC cell, [Fig. 8], wherein the negative C plate is between the first polarizer and the negative A plate [Table 1, top of Col. 10, wherein different embodiments are described and a C plate is between the front side and the A plate.]”

Applicants respectfully submit that the Examiner is mischaracterizing the teachings of Winker. More specifically, Winker teaches a compensator that includes a positively birefringent O-plate layer with a special orientation that makes it possible to have a significant improvement in the gray scale properties and contrast ratios of liquid crystal displays over a wide range of viewing angles. In particular, as shown in Table I of Winker, even in the configuration where C-plate and A-plate are arranged next to each other, there is an O-plate between the C- and A-plates and the first polarizer. Also, in other configurations, like Fig. 8 in Winker, there is an O-plate arranged between C-plate and A-plate. Therefore, Winker does not disclose *a negative C plate and a negative A plate arranged between the liquid crystal cell and the first polarizer*.

Moreover, Winker fails to disclose *an isotropic optical element arranged between the liquid crystal cell and the second polarizer* as acknowledged by the Office Action on page 2,

item 2.2, lines 10-11. Nonetheless, the Office Action contends that the Aminaka discloses “an optical compensatory sheet consisting of acetate film that can be used as an isotropic optical element (e.g. a transparent protective film of a polarizing plate) of a liquid crystal display.” Therefore the Office Action concludes that “since Aminaka and Winker are from the same field of endeavor, the acetate film of Aminaka would have been recognized as being in the pertinent art of Winker. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the acetate film of Aminaka with the LC display of Winker as a transparent protective film for the polarizer.”

However, even assuming for argument sake that the optical compensatory sheet disclosed in Aminaka is same or similar to the isotropic optical element recited in the claimed invention, Aminaka’s disclosure cannot be construed as disclosing *an isotropic optical element arranged between the liquid crystal cell and the second polarizer* as recited in claim 1.

Therefore, because the cited references, Winker and Aminaka, do not teach or suggest all of the claimed elements and limitations in claim 1, Applicants submit that a person of ordinary skill in the art would not make the combination suggested by the examiner as obvious and the resulting combination would not yield the invention in claims 1, 5, 9 and 12. Accordingly, Applicants request that the rejection under 35 U.S.C. 103 be withdrawn.

Moreover, it is to be noted that in *KSR v. Teleflex*, the Supreme Court of the United States (SCOTUS) held that to support a conclusion that the claim would have been obvious, it must be shown that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination yielded nothing more than predictable results to one of ordinary skill in the art.

Thus, the obviousness rejection made by the Office is improper because the Office Action, inter alia, has failed to make the following required findings as set forth in MPEP 2143 (A), a revision to MPEP post KSR in view of SCOTUS's decision:

(A) a finding that one of ordinary skill in the art could have combined the elements as claimed by known methods, and that in combination, each element merely performs the same function as it does separately; and

(B) a finding that one of ordinary skill in the art would have recognized that the results of the combination were predictable.

As to (A) above, Applicants point out to the Examiner that the liquid crystal panel of the claimed invention eliminates adverse effects on display properties due to the retardation value of the liquid crystal cell by (1) arranging an isotropic optical element between the liquid crystal cell

and a second polarizer arranged on one side of the liquid crystal cell. Further, light leak in an oblique direction due to the retardation values of the polarizers or the structural members arranged between the polarizers and the liquid crystal cell can be reduced by (2) using a negative C plate between the liquid crystal cell and a first polarizer arranged on another side of the liquid crystal cell, in addition to the negative A plate, and arranging the negative C plate between the first polarizer and the negative A plate.

It is to be noted that the liquid crystal panel components described in (1) and (2) in combination provide a synergetic effect because the invention made by the combination of these elements perform a function that drastically reduces light leak in an oblique direction in black display and provides a liquid crystal panel with a significantly higher contrast ratio in an oblique direction than a contrast ratio in an oblique direction of a conventional liquid crystal panel and a smaller color shift in an oblique direction.

In view of foregoing, Applicants submit to the Office that neither a person of ordinary skill in the art could have combined the elements as claimed nor could have recognized the results of the combination as predictable because the combination not only drastically reduces light leakage in an oblique direction in black display but also provides a significantly higher contrast ratio in an oblique direction than a contrast ratio in an oblique direction of a conventional liquid crystal panel and a smaller color shift in an oblique direction.

Therefore, Applicants submit that Office has not established a prima facie case of obviousness. As such, the aforesaid rejection is improper and request that it be removed.

As to dependent claims, Applicants submit that claims 2, 5, 9 and 12 are patentable by virtue of their dependency on patentable claim 1 as noted above because they incorporate by reference to distinguishing features of independent claim 1.

Conclusion

The Claims have been shown to be allowable over the prior art. Applicants believe that this paper is responsive to each and every ground of rejection cited in the Office Action dated April 13, 2009, and respectfully request favorable action in this application. The Examiner is invited to telephone the undersigned, applicants' attorney of record, to facilitate advancement of the present application.

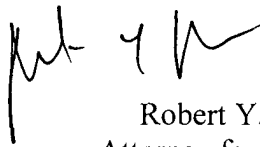
Application No.: 10/591,748
Art Unit: 2883

Amendment under 37 CFR §1.111
Attorney Docket No.: 062980

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

A handwritten signature in black ink, appearing to read 'R. Y. Raheja', is positioned above the printed name.

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